Accessories

This section provides descriptions, service, maintenance and adjustment detail on the following accessories:

- Dual voltage intra-oral light source
- Single voltage intra-oral light source
- Cascade scaler
- Tooth dryer
- Self-contained water system
- Low voltage water heater/heated syringe system
- Curing light.

Identifying the Accessories

Dual/Single Voltage Intra-Oral Light Source

The A-dec Intra-oral light sources provide electrical power to illuminate handpiece light bulbs. The dual voltage control has two potentiometers to allow operation of two different bulb requirements. The single voltage light source has a single potentiometer to adjust output voltage. Both units have a low and a bright output that must be adjusted when in bright mode. Refer to the following table for specifications.

Intra-Oral Light Source Specifications

	Single	Dual
Output	2.9-4.25 VAC at 0.8 amps	3.0-5.6 VAC at 1.4 amp
Input	24 VAC	24 VAC
Power Consumption	17 watts	17 watts

Tooth Dryer

A-dec's warm air tooth dryer provides warm air, for tooth preparation. It is sterilizable, has no moving or electrical parts, and functions by routing 60 psi of air pressure through its vortex tube. The warm air flows out of the tip at 125°F/ 51.7°C and 135°F/57°C while the cool air is exhausted. The tooth dryer should be connected to a tooth dryer end cap or relay and a dedicated tooth dryer tubing for optimum performance.

Accessories

Self-Contained Water System

The self-contained water system provides a closed water supply system separate from the municipal system. When supplied with 40 psi of air pressure, it provides treatment water to the control block system and syringe. It also allows for water line asepsis and air purging of the control system.

Low Voltage Water Heater/ Heated Syringe System

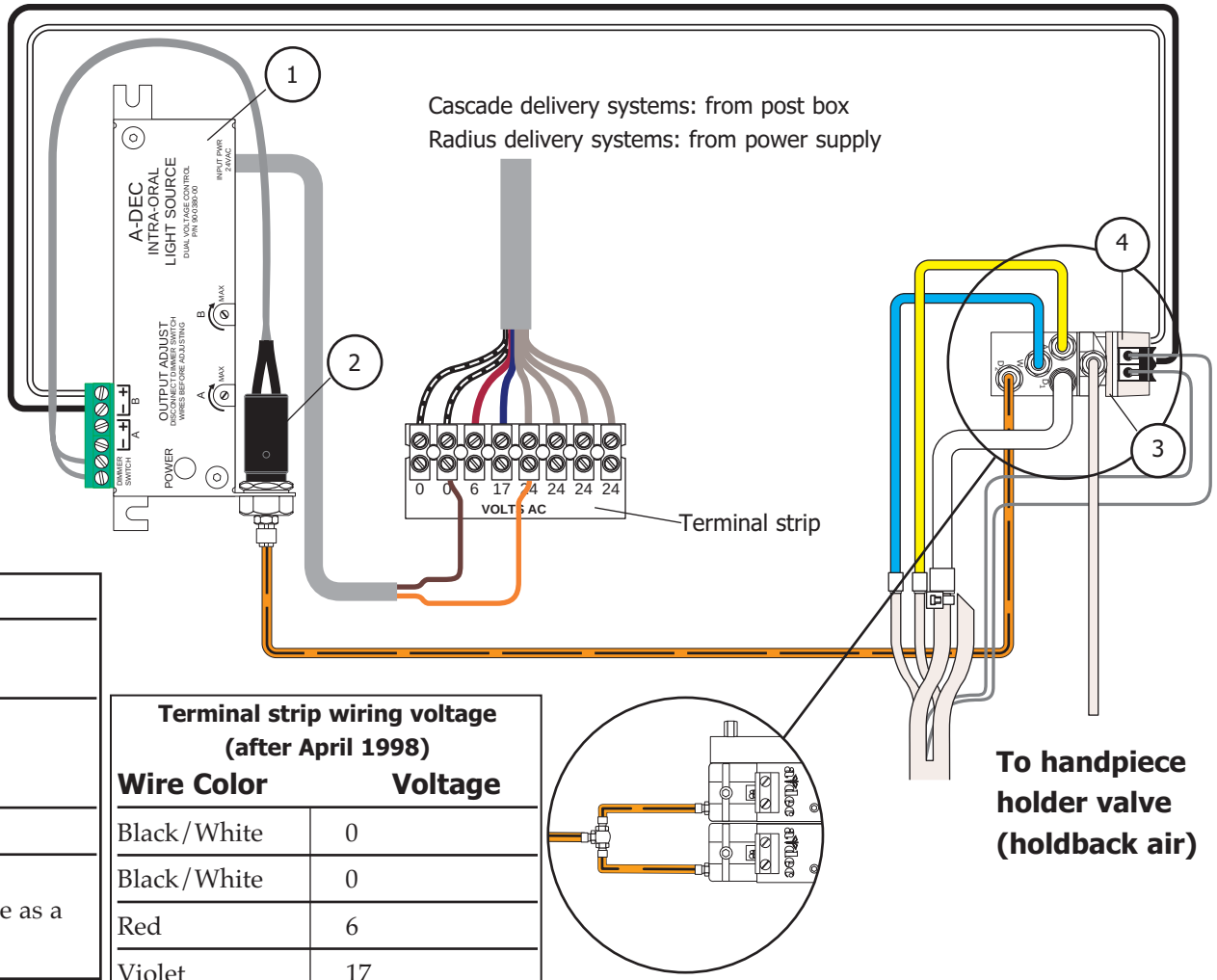
The low voltage water heater/heated syringe tubing system provides instant heated water (90°F/32.2°C) to the unit handpiece control and syringe.

Specifications	
Low Voltage Water Heater	24 VAC
Syringe Tubing	6 VAC

Dual Voltage Intra-Oral Light Source

NOTE: Confirm that the bulb requires no more than 1.3 amps before connecting any lighted handpiece or coupler to the A-dec dual voltage intra-oral light source. When additional lighted handpieces are connected to the control, an additional handpiece select switch and shuttle valve (026.074.01) will be installed for each additional handpiece.

After April 1998



Item #	Part Number	Description
1	90.0380.00	Intra-oral light source, dual voltage
2	044.159.00	Air-electric switch (replace as a complete assembly)
3	75.0911.01	Switch diaphragm
4	75.0909.00	Intra-oral light source switch (replace as a complete assembly)

Terminal strip wiring voltage (after April 1998)

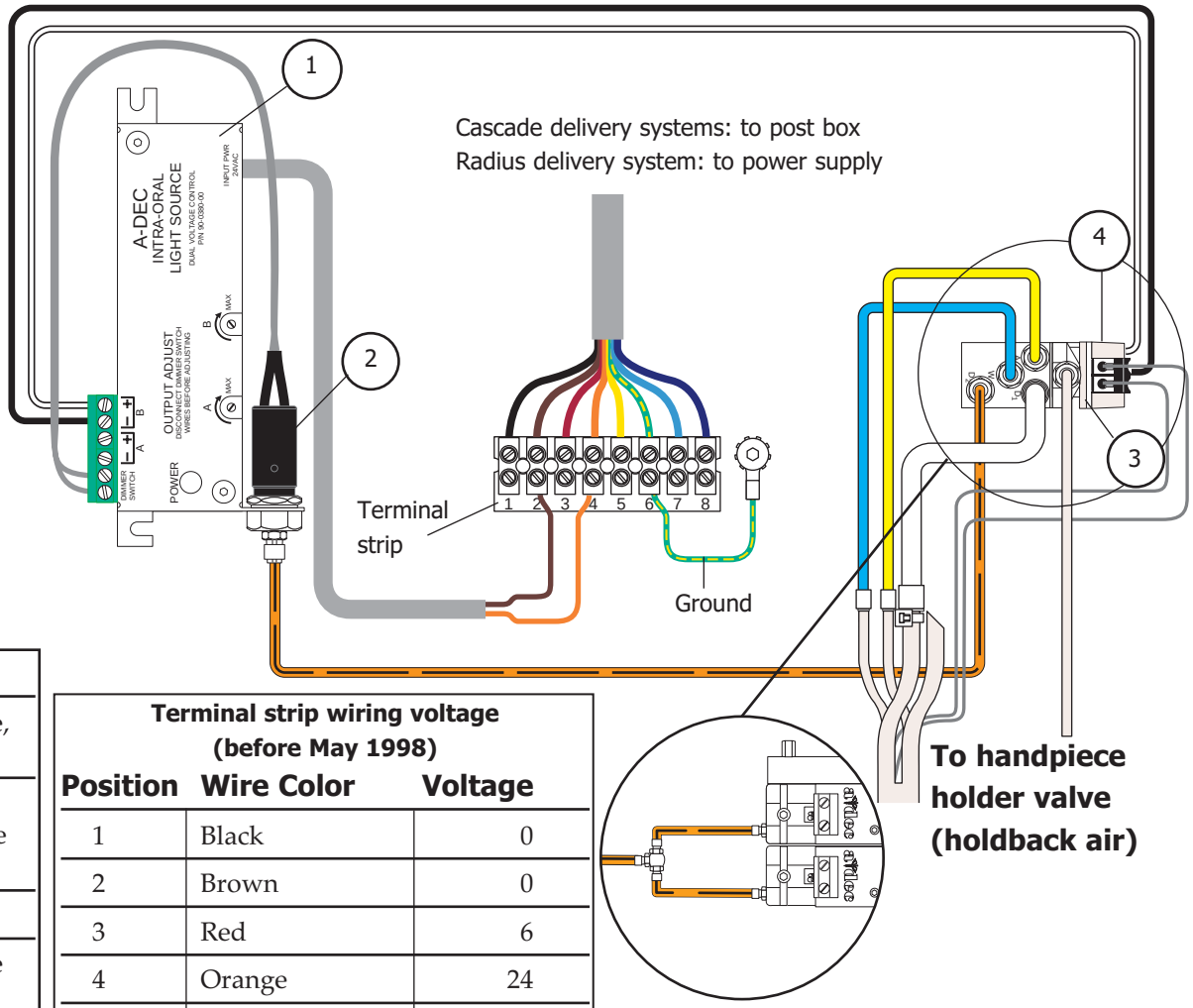
Wire Color	Voltage
Black/White	0
Black/White	0
Red	6
Violet	17
Gray	24
Gray	24
Gray	24
Gray	24

Before May 1998

Dual Voltage Intra-Oral Light Source

NOTE: Confirm that the bulb requires no more than 1.3 amps before connecting any lighted handpiece or coupler to the A-dec dual voltage intra-oral light source. When additional lighted handpieces are connected to the control, an additional handpiece select switch and shuttle valve (026.074.01) will be installed for each additional handpiece.

NOTE: Voltages should be adjusted while the foot control is being stepped on. This ensures the DIOLS is in bright mode. Do not measure voltage at the end of the tubing. It is necessary to have a bulb installed and illuminated for an accurate reading.



Item #	Part Number	Description
1	90.0380.00	Intra-oral light source, dual voltage
2	044.159.00	Air-electric switch (replace as a complete assembly)
3	75.0911.01	Switch diaphragm
4	75.0909.00	Intra-oral light source switch (replace as a complete assembly)

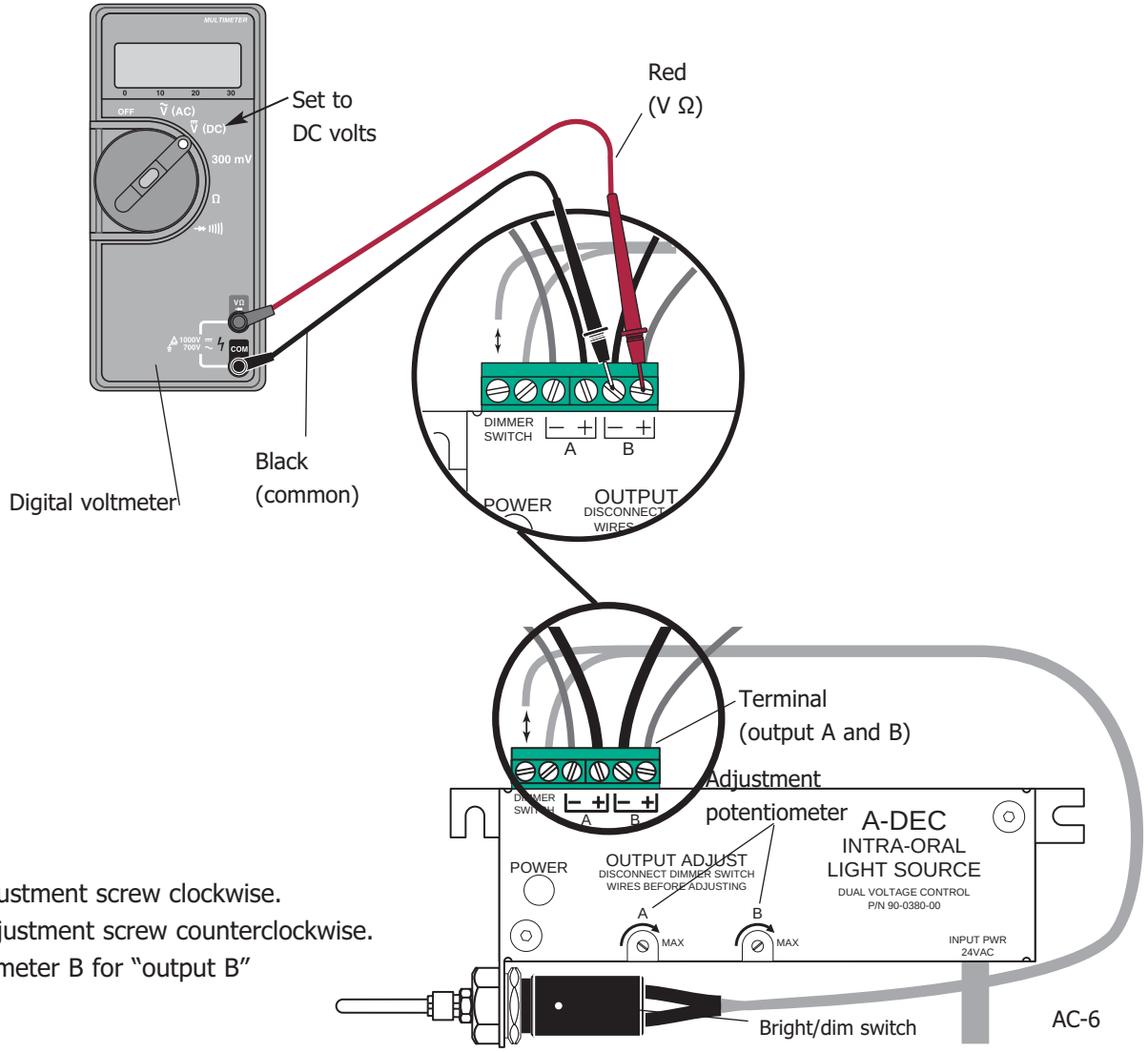
Terminal strip wiring voltage (before May 1998)

Position	Wire Color	Voltage
1	Black	0
2	Brown	0
3	Red	6
4	Orange	24
5	Yellow	24
6	Green & Yellow	Ground
7	Blue	24
8	Violet	17

Adjusting the Dual Voltage Intra-Oral Light Source (DIOLS)

Length and Voltage Table		
Wire length in A-dec tubing		Voltage at terminal strip* A-dec/W&H, Bien Air, or other bulbs rated at 3.5V
(in)	**(cm)**	**VDC +/- .02**
48	122	3.51
54	137	3.54
60	152	3.56
66	168	3.59
72	183	3.62
78	198	3.65
84	213	3.67
90	229	3.69
96	244	3.71
102	259	3.74
108	274	3.76
114	290	3.79
120	305	3.82
126	320	3.85
132	335	3.87
138	351	3.90
144	366	3.93
150	381	3.96
156	396	3.99

*Voltage is measured at output terminal of IOLS with bulb lit. (Unit must be in bright mode when adjusting the output voltage if the function is used. Disconnect one of the bright/dim switch wires temporarily to enable the bright mode. Reconnect the wire after any adjustments are made.)



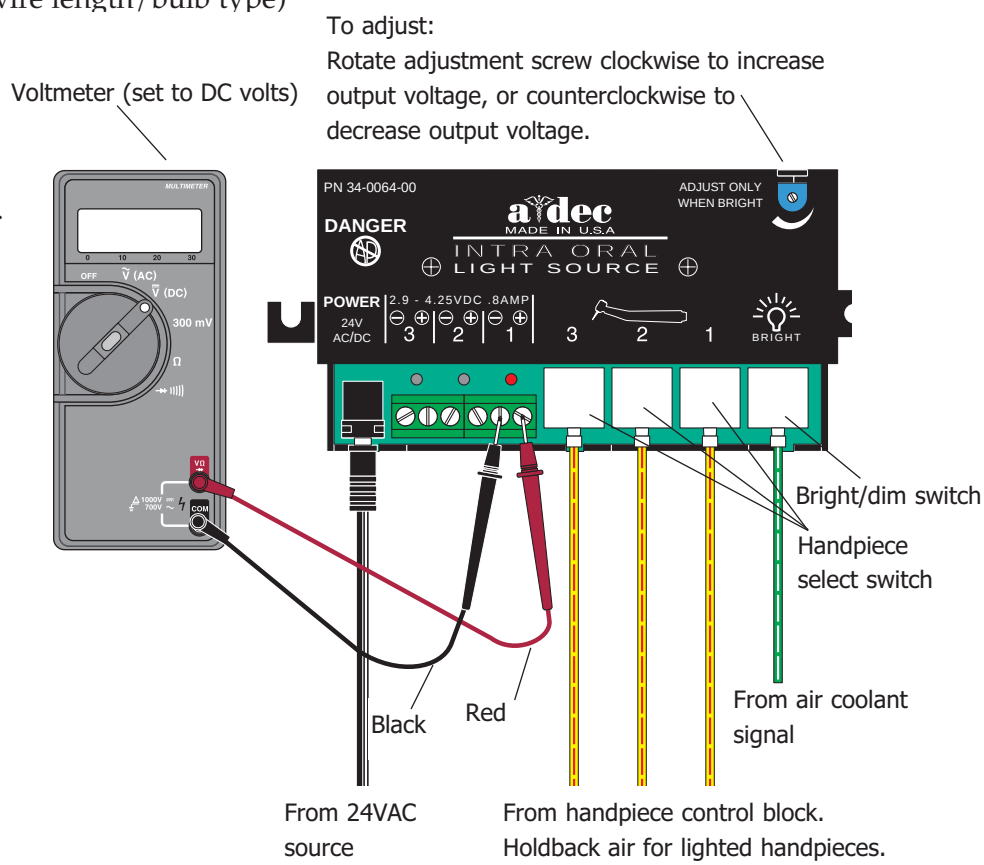
NOTE: Increase the terminal voltage by rotating the adjustment screw clockwise. Decrease the terminal voltage by rotating the adjustment screw counterclockwise. Use potentiometer A for "output A" and potentiometer B for "output B"

Adjusting the Single Voltage Intra-Oral Light Source (SIOLS)

NOTE: Voltages should be adjusted while the foot control is being stepped on. This ensures the SIOLS is in bright mode. If measuring voltage at the end of the tubing, use A-dec/W&H tools. It is necessary to have a bulb installed and illuminated for an accurate reading.

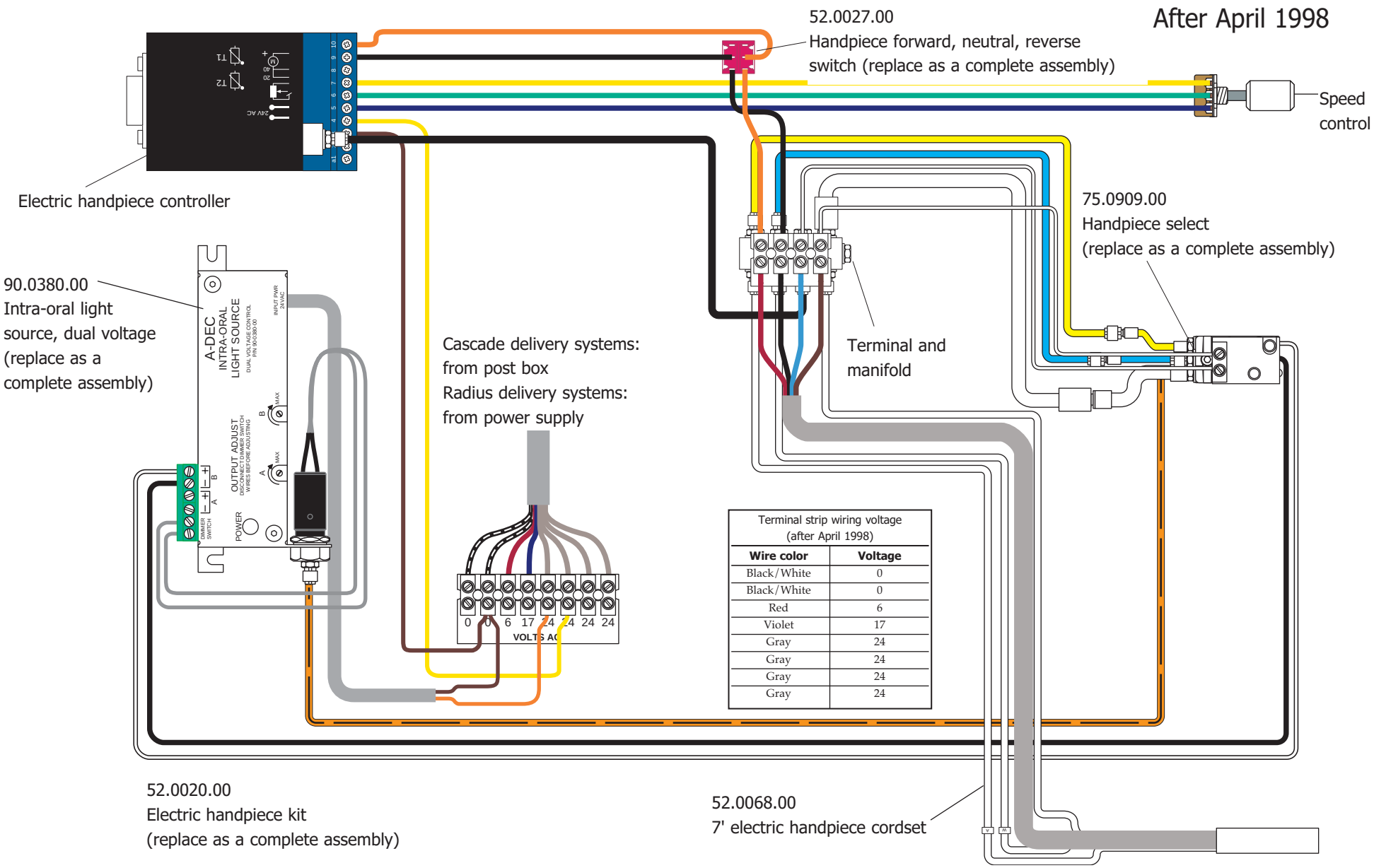
Adjust the SIOLS by following these steps.

Task	Description
1	Determine the handpiece wire length and the bulb type. (Wire length and bulb type should be the same for each lighted handpiece position.)
2	Find the corresponding (wire length/bulb type) terminal voltage in the "Length/Voltage Table" on page AC-6.
3	Remove a lighted handpiece from its holder.
4	Move the wet/dry toggle on the foot control to the OFF position, away from the blue dot. Step on the foot control.
5	Using an adjustment screwdriver, adjust the brightness potentiometer until the voltmeter displays the voltage set from the Length/Voltage Table on page AC-6.
6	Replace the handpiece in its holder. All lighted handpieces have been adjusted.



NOTE: For handpiece select switches, unlighted positions must be connected to pilot air.

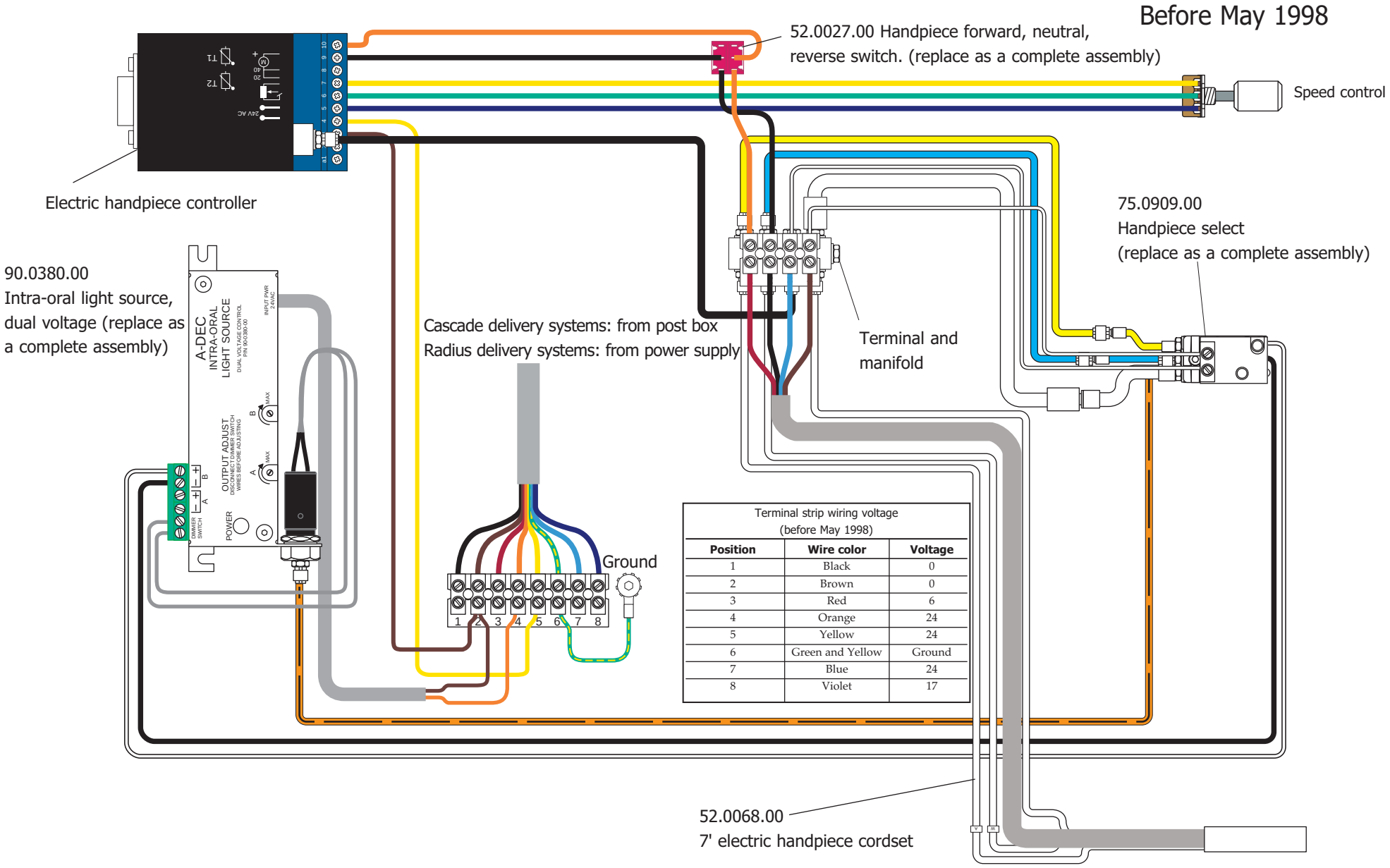
Electric Handpiece Plumbing and Wire Diagram



Terminal strip wiring voltage (after April 1998)

Wire color	Voltage
Black/White	0
Black/White	0
Red	6
Violet	17
Gray	24
Gray	24
Gray	24
Gray	24

Electric Handpiece Plumbing and Wire Diagram



Terminal strip wiring voltage (before May 1998)

Position	Wire color	Voltage
1	Black	0
2	Brown	0
3	Red	6
4	Orange	24
5	Yellow	24
6	Green and Yellow	Ground
7	Blue	24
8	Violet	17

Adjusting Handpieces

Measurement can be done at the handpiece or the Roto-Quick with the use of special tools. When measuring at this point, the voltage should be 3.2 V. Tool #C709 is a RA-24 bulb with arms used to attach the volt meter probes. Tool # C679 is a cutout sleeve for the Synea L handpieces. This can be exchanged for the standard sleeve, connected to the Roto-Quick and allows access for the probes onto the contacts.

*The air pressure adjustment screw is located under the sleeve opposite the bulb. It is factory set at 2.2 bar (representing 32 psi). If air pressure needs to reach 45 psi, adjust the screw to 3.0 bar to compensate for higher pressure.

A-dec/W&H Handpiece Drive Air and Light Voltage Settings

Handpiece Model	Voltage Setting (DC)	Drive Air Pressure (psi)	Factory Setting at Bulb Pins
898 RM or 898 RM	3.2	32	N/A
898LE	3.2	45	3.0 bar
896	3.2	32*	2.2 bar*
All Synea models	3.2	45	3.0 bar
Low-speed motors	3.2	45	N/A
Electric motors	3.2	55-60	N/A
Tooth dryer	N/A	60	N/A

NOTE: Voltages should be adjusted while the foot control is being stepped on. This ensures the SIOLS is in bright mode. If measuring voltage at the end of the tubing, use A-dec/W&H tools. It is necessary to have a bulb installed and illuminated for an accurate reading.

Maintaining Handpieces

The information in the following charts assists in maintaining handpieces properly.

Step	Action
Cleaning	Follow these points to properly maintain handpieces. With water switched off, run handpiece 20 to 30 seconds to blow all water out of spray tubes using the foot control. If the spray tubes are not dry, they may become clogged with calcium deposits during heat sterilization. After removing the handpiece from the dental unit, remove the bur and thoroughly clean external surfaces with a soft brush and alcohol or soap and water. Use of disinfectant may have a harmful effect on the finish of the handpiece. **CAUTION** Do not immerse handpieces under water or in any cleaning solutions. Do not ultrasonically clean handpieces.
Lubricating	Install the proper spray cap onto the A-dec/W&H spray oil can. Shake the can before use. Spray for approximately one second into the drive air port of the handpiece or the back end of the handpiece. While spraying, visible debris may be expelled from the handpiece head. If this occurs, repeat the spraying in one second intervals until no visible debris is expelled.
Run	After lubrication, the handpiece should be attached to a handpiece tubing and run for 30 seconds to remove all excess oil. Excess oil will be discharged from the handpiece during this running. Wipe excess oil off with a soft cloth.

Step	Action
Sterilization	Sterilize handpieces in instrument packaging up to (275°F) 135°C. Handpieces should be dry when they are removed from the sterilizer. Do not use dry heat or chemical immersion sterilization. There is no need to lubricate after sterilization. **CAUTION** Handpieces should be lubricated before every sterilization. In the case of motors that may not be sterilized between patients, it is important to lubricate after every 30 minutes of use or 2 times per day, i.e., first thing in the morning and again at mid-day.
Assistina	The Assistina automatically combines steps 1-4 of the manual method into a single cycle. If debris is expelled from the handpiece head during the cycle, keep cycling the handpiece until no visible debris is expelled. Only use W&H lubricant and cleaning liquid. Handpieces should be dry when they are removed from the sterilizer. Do not use dry heat or chemical immersion sterilization.

Troubleshooting High-Speed Handpieces

The following detail provides diagnostic information for high-speed handpieces.

Problem	Action
Turbine does not rotate	Follow these steps. **Task** **Description** 1 Check drive air. 2 Check head for dents that interfere with turbine rotation. 3 Check push button cap for dents blocking turbine.
Excessive noise, vibration	Follow these steps. 1 Check drive air pressure. 2 Check head for dents that interfere with turbine rotation. 3 Check bur for damage. 4 Bearings are worn/damaged, replace turbine.
Poor cutting performance	Follow these steps to determine the problem. 1 Check air pressure. 2 Check bur quality. 3 Check flow resistance of exhaust air (in tubing). 4 Check for blockage or leakage in drive air tube. 5 Check position of pressure regulation screw.

Problem	Action
Bur cannot be inserted into chuck	Check the following points if the bur cannot be inserted into the chuck: • Check bur size. • Check bur for damage.
Bur is not held sufficiently (walks out)	Follow these steps. **Task** **Description** 1 Check bur size. 2 Check how far the bur is extended. 3 Check for excessive load.
Bur cannot be removed from the chuck	Follow these steps to determine why the bur can't be removed. 1 Check the bur for ”grabbed“ cotton. 2 Check bur size. 3 Check for excessive load.
No water spray	Follow these steps. 1 Remove handpiece/Roto-Quick from tubing. 2 Determine if tubing has water flow. 3 Check Roto-Quick for water flow. 4 Check handpiece spray tube for clogs. 5 Check water supply.

Problem	Action
Inconsistent spray	Follow these steps. **Task** **Description** 1 Check Roto-Quicks small o-ring. Replace if missing or worn. 2 Check connection between the Roto-Quick and tubing. 3 Check for air in water line.
Poor water atomization	Follow these steps. 1 Check water pressure. 2 Check chip air pressure. 3 Check chip air line for blockage. 4 Check chip air line for damage.
No light	Follow these steps to determine why there is no light. 1 Check bulb. If the bulb appears to be burned out or damaged, replace the light bulb. 2 Check Roto-Quick connection. 3 Check gold ring position on Roto-Quick. (Autoclaving can alter ring position.) 4 Check delivery system fiber-optics.
Low light intensity	Follow these steps to check the light intensity. 1 Check bulb. If the bulb appears to be dim or damaged, replace the light bulb. 2 Check light source voltage setting. 3 Check fiber-optic surface for dirt or scratches.

Problem	Action
Bulb life is too short	Check light source voltage setting.
Handpiece turns too hard on the Roto-Quick coupler	Follow these steps. **Task** **Description** 1 Check tip of Roto-Quick for bends. 2 Check for incorrect Roto-Quick o-ring. 3 Check to see if ball bearing swivel is turning freely.
Handpiece does not hold on Roto-Quick	Follow these steps to determine why the handpiece doesn't hold. 1 Check claw sleeve on Roto-Quick, for breaks or being out-of-round. 2 Check tip of Roto-Quick for bends 3 Check that handpiece sleeve is screwed in firmly.
Lighted handpiece turbine turns slowly when another lighted handpiece is used	Replace the shuttle valve between the Century Plus control block D2 ports.
Push button gets hot	Check for dents in head of handpiece or debris in headcap, turbine could be touching push button while operating.

Maintaining the Electric Motor

Voltage for the light bulb should not be set higher than 3.2 volts. (Measured at bulb pins when bulb is lit and in bright mode.)

Drive air pressure should be set to 50 psi.

CAUTION

Do not sterilize the motor. Do not lubricate the motor.

Attachments should be removed from the motor when not in use. (Leaving attachments on the motor allows lubricant from the attachment to leak into the motor and interfere with internal components.)

The motor should always be removed from the tubing when lines are flushed. (If left ON, fluids can seep between the motor seal and the tubing terminal and corrode the electrical components. This results in decreased or complete failure of the motor, tubing and/or fiber-optic performance.)

External cleaning of the motor should be done with warm soapy water and/or a cotton swab with alcohol. (The outer sheath can be removed and sterilized if needed.)

The practice of "feathering" the foot control to adjust motor speed places extra strain on the motor and causes a significant reduction in the air flow that cools the motor. This can cause premature failure that may require factory repair. Motor speed should only be adjusted by turning the speed control on the motor controller assembly.

It is important to flush and air purge the unit at the end of each day, to ensure that the terminal on the electric motor tubing/cordset is dry afterward. The tubing can be hung upside-down overnight or blown dry with air from the syringe. Fluids left sitting on the terminal can cause corrosion of electrical components.

Troubleshooting the Electric Motor

The following detail provides diagnostic information for electric motors.

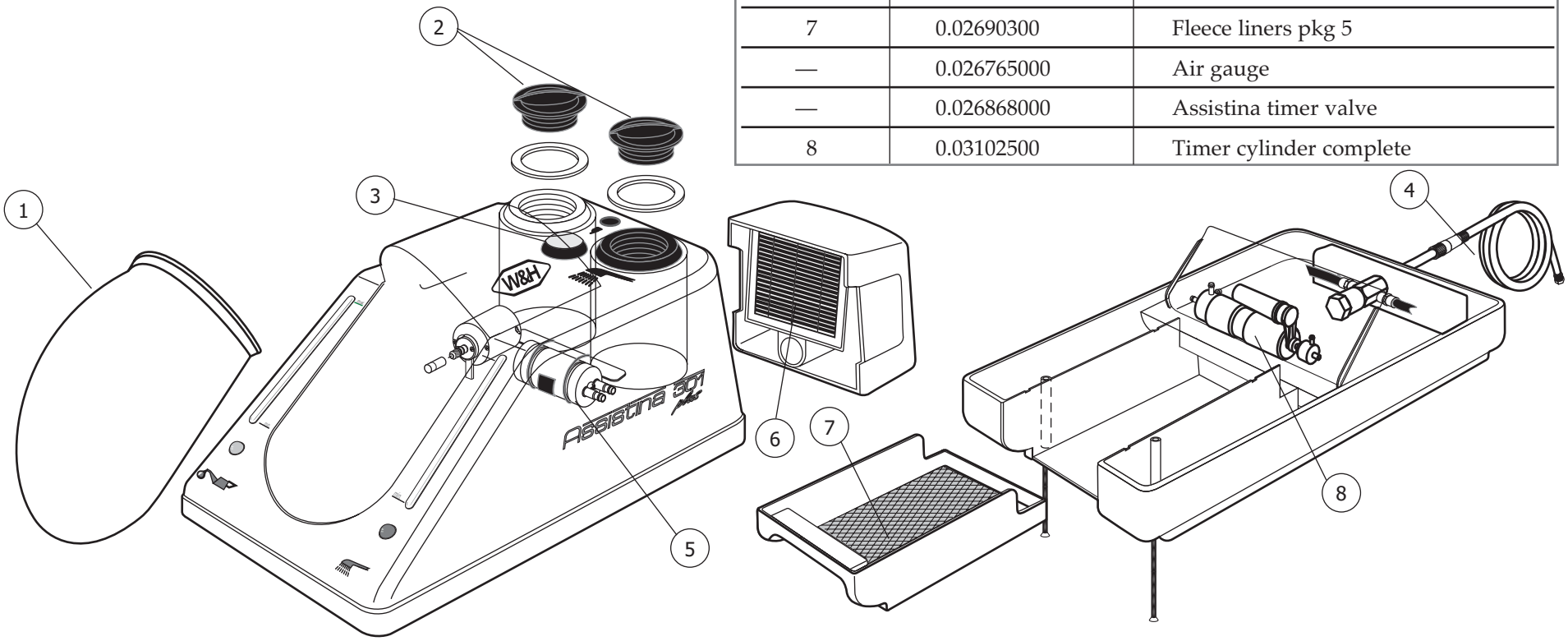
Problem	Action
Motor starts but does not run at maximum speeds	Check the speed control and adjust in the maximum clockwise position. Check for 24V on number 9 and 10 positions on the blue terminal strip in the motor control box.
Motor is heating up during use	Follow these steps. **Task** **Description** 1 Check drive air on the pressure gauge; should be 55 psi. 2 Check that motor seats in the handpiece holder properly. 3 Use full pressure on the foot control rather than “feathering” the foot control.
Motor runs at full speed but cannot be controlled with the speed control	Check the transistor on the PC board. If burned, do not use. Return board to A-dec.

Problem	Action
Light does not work	Follow these steps to determine why the light doesn't work. **Task** **Description** 1 Check black button on motor, should be depressed. The light should illuminate. 2 Check bulb. 3 Check blue and black wires connected to green connector. 4 Check voltage at green connector; should be 3.5 volts. 5 Check voltage at end of tubing. To check voltage, remove motor from tubing. 6 Install the motor and test.
Water is leaking	Follow these steps to determine why water is leaking. 1 Check that motor sleeve is snapped down in locked position. 2 Check o-rings of motor stem. 3 Check that the motor is threaded tightly onto the tubing nut.

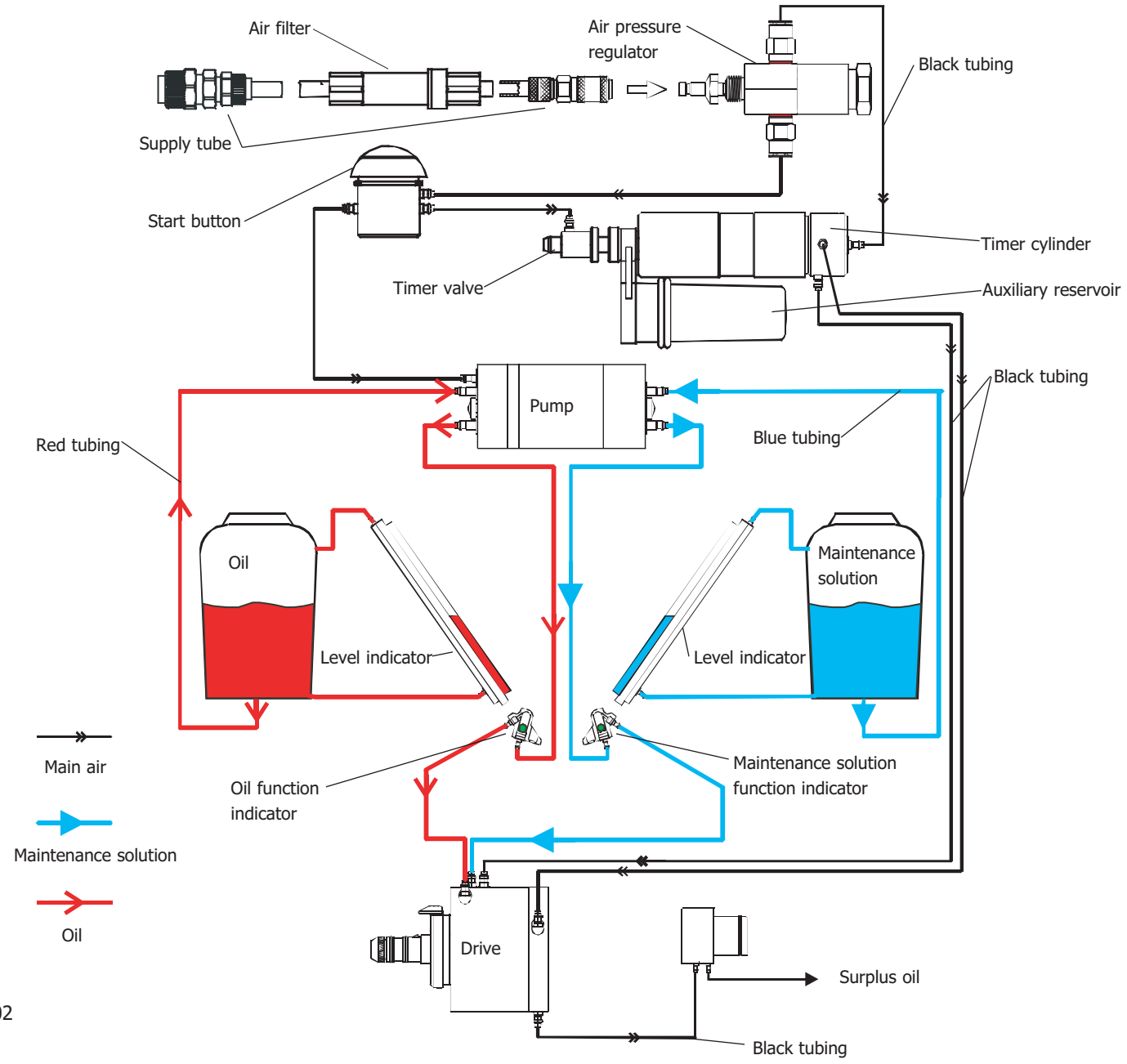
Problem	Action
Rough running at lower speeds, lack of power, torquing of motor when starting	Check circuit board dip switches. Before May 2, 2000, switches may have been set in the incorrect position. They are very small on the front of the circuit board. The correct position is #1 towards ON, and #2 towards OFF. Check the internal potentiometer. Two potentiometers with slots on the end are located behind the dip switches. The left one controls the speed of the motor, and rarely needs to be adjusted. The right one controls how much voltage is fed to the motor. Using a standard screwdriver, while the motor is running, turn the screw (could be clockwise or counterclockwise) on the voltage potentiometer until the motor smooths out.
Motor does not turn	Follow these steps. **Task** **Description** 1 Check the forward, neutral, and reverse switch. 2 Make sure the direction control toggle is not in the center position. 3 Check to see if the transformer plug is connected to the socket. 4 Check the speed control and adjust in the maximum clockwise position. 5 Check to see if the dental unit master switch is ON. 6 Check drive air on the pressure gauge; should be at 55 psi. 7 Check transformer fuse. 8 Check the dip switch settings. 9 Check wire connections.

Assistina

Item	Part Number	Description
1	0.02699900 0.02699901	Dome Dome, special for longer handpieces
2	0.02681600	Reservoir cap (lock screw)
3	0.02683500 0.02683900	Push button assembly O-ring for push button assembly
4	0.02697030 0.02675200	Assistina supply tube (includes filter) Filter only
5	0.03102000	Assistina dosage pump
6	0.026705000	Assistina aerosol filter
7	0.02690300	Fleece liners pkg 5
—	0.026765000	Air gauge
—	0.026868000	Assistina timer valve
8	0.03102500	Timer cylinder complete



A-dec/W&H Assistina Plumbing Diagram



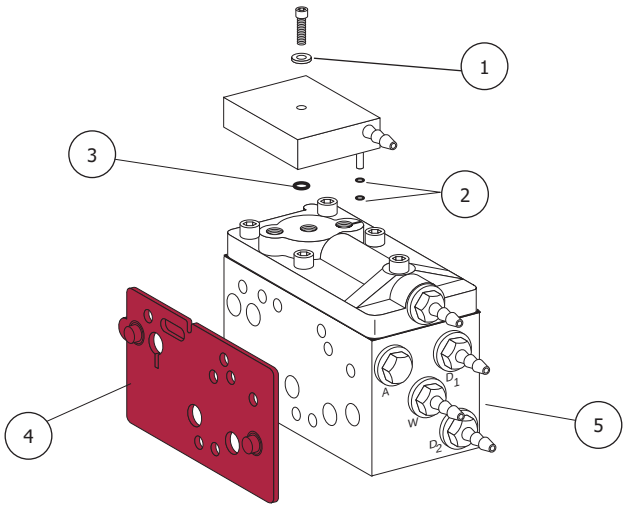
Troubleshooting the Assistina

The following detail provides diagnostic information for troubleshooting the Assistina.

Problem	Action
Excessive lubricant in handpiece	Follow these steps to check for excessive lubricant. **Task** **Description** 1 Is the user holding the button down for only two full seconds? 2 Check o-rings on main shaft. 3 Check o-ring on adapters/couplings. 4 Check that couplings are screwed on tightly to the universal adapter. 5 Check air lines for excessive oil or leaks.
Running too long or too short	Follow these steps. 1 Is the user pushing the button down for a full two seconds? 2 Check for water in the timer cylinder, unscrew end of cylinder, and drain. 3 Check timer cylinder for dirt and debris.
Sticking start button	Follow these steps to see why the start button sticks. 1 Check to make sure covers are vented. Older machines develop a vacuum inside the chamber. Drill a small hole in each cap. 2 Check that the transport seals in both covers are removed. 3 Remove upper half of machine by removing the two screws under the front. Remove start button assembly by pushing up firmly from the underside while turning the ring counterclockwise on the top. Clean and lubricate the push button o-rings. Reassemble.

Century Plus Scaler Block

Item	Part Number	Description
1	004.078.00	Nylon washer, flat
2	030.001.02	O-ring pkg 10
3	030.003.02	O-ring pkg 10
4	38.0550.01	Scaler side gasket, molded (Red) pkg 5
5	—	Century Plus control block refer also to *Handpiece Controls (HC)*
—	38.0537.01	Century Plus scaler block service kit



38.0549.00
Century Plus Scaler Block

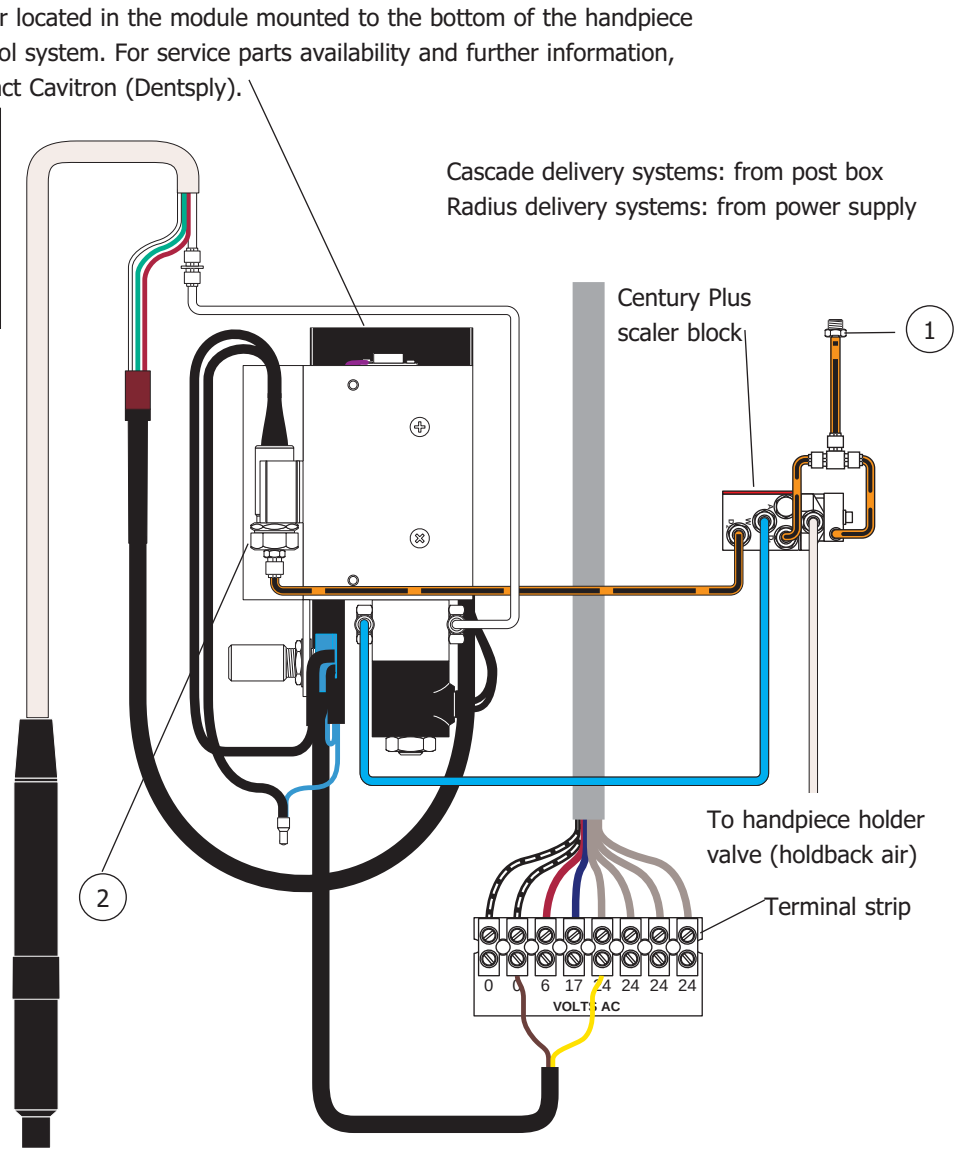
After April 1998

Scaler System
(Cascade)

Item	Part Number	Description
1	023.036.00	Air bleed barb
2	044.158.00	Normally open air-electric switch (replace as a complete assembly)

Terminal strip wiring voltage
(after April 1998)

Wire color	Voltage
Black/White	0
Black/White	0
Red	6
Violet	17
Gray	24
Gray	24
Gray	24
Gray	24


Scaler located in the module mounted to the bottom of the handpiece control system. For service parts availability and further information, contact Cavitron (Dentsply).
Cascade delivery systems: from post box
Radius delivery systems: from power supply
Century Plus scaler block
1
2
To handpiece holder valve (holdback air)
Terminal strip
0 0 6 17 24 24 24 24
VOLTS AC

Before May 1998

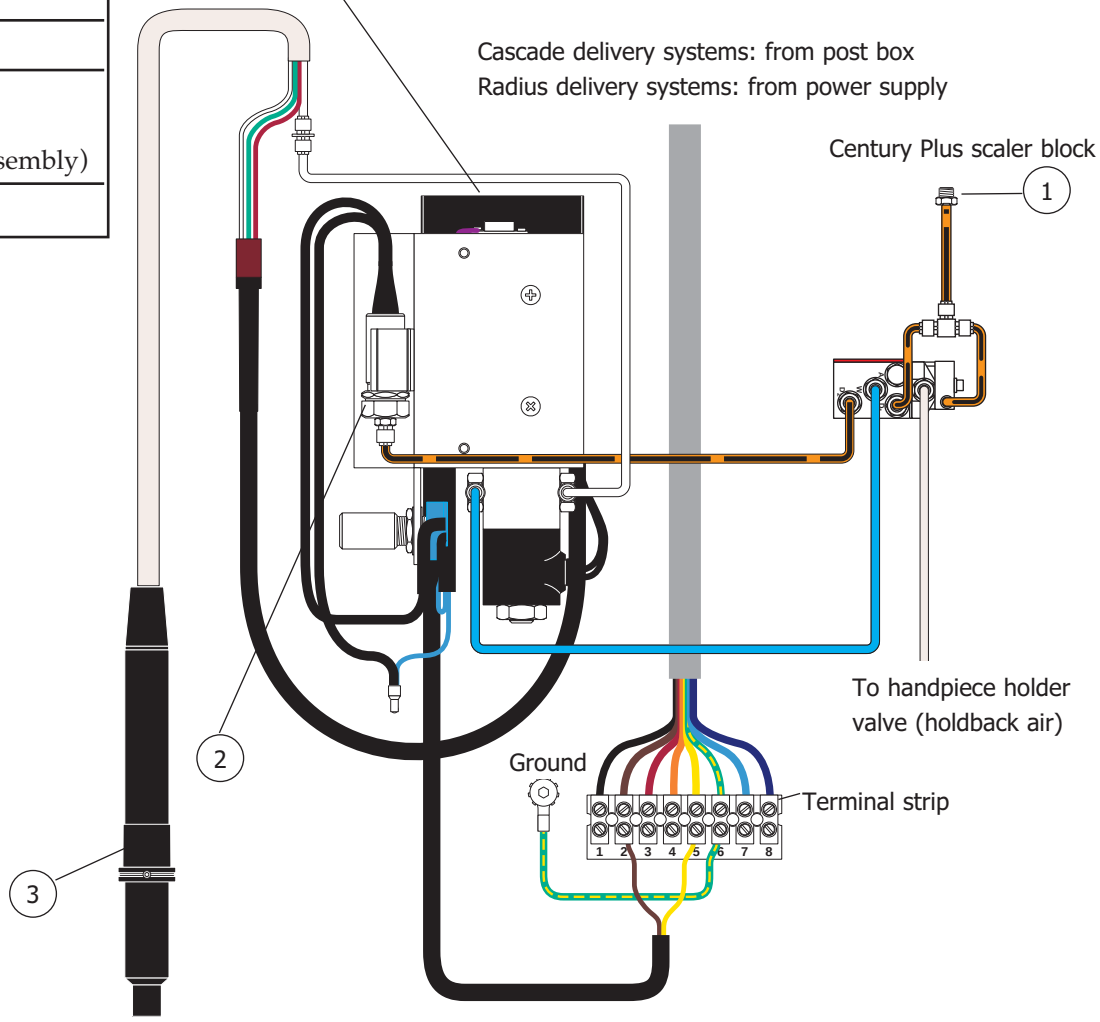
Scaler System
(Cascade)

Scaler located in the module mounted to the bottom of the handpiece control system.
For service parts availability and further information, contact Cavitron (Dentsply).

Item	Part No.	Description
1	023.036.00	Air bleed barb
2	044.158.00	Normally open air-electric switch (replace as a complete assembly)
3	40.0325.00	Scaler handpiece collar

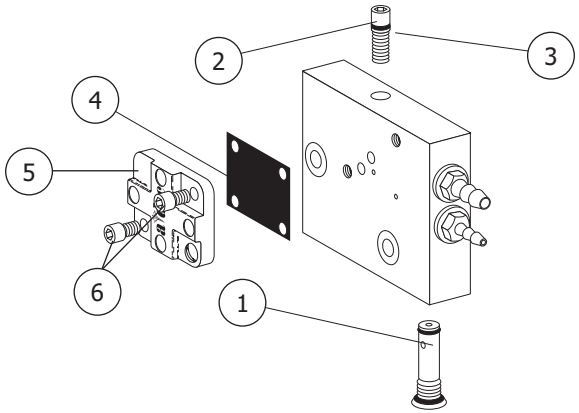
Terminal strip wiring voltage
(before May 1998)

Wire color	Voltage
Black	0
Brown	0
Red	6
Orange	24
Yellow	24
Green & Yellow	Ground
Blue	24
Violet	17

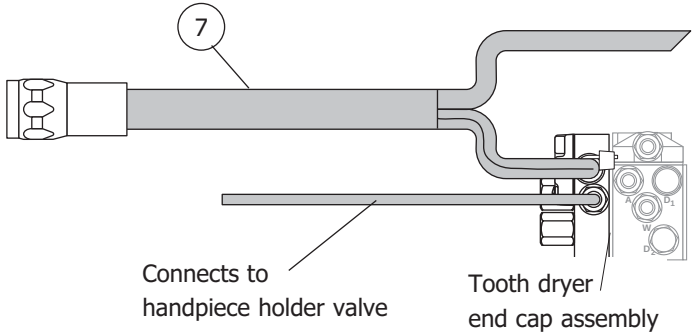


Tooth Dryer Block

Item	Part Number	Description
1	38.0517.00	Air bleed cartridge with o-rings
2	38.0510.00	Drive air flow adjustment screw without o-ring
3	035.034.01	O-ring, special pkg 10
4	38.0054.02	Diaphragm pkg 10
5	38.0181.00	Valve cover
6	002.128.00	Screw
7	98.0012.02	Tooth dryer tubing assembly



38.0535.00 Tooth Dryer End Cap



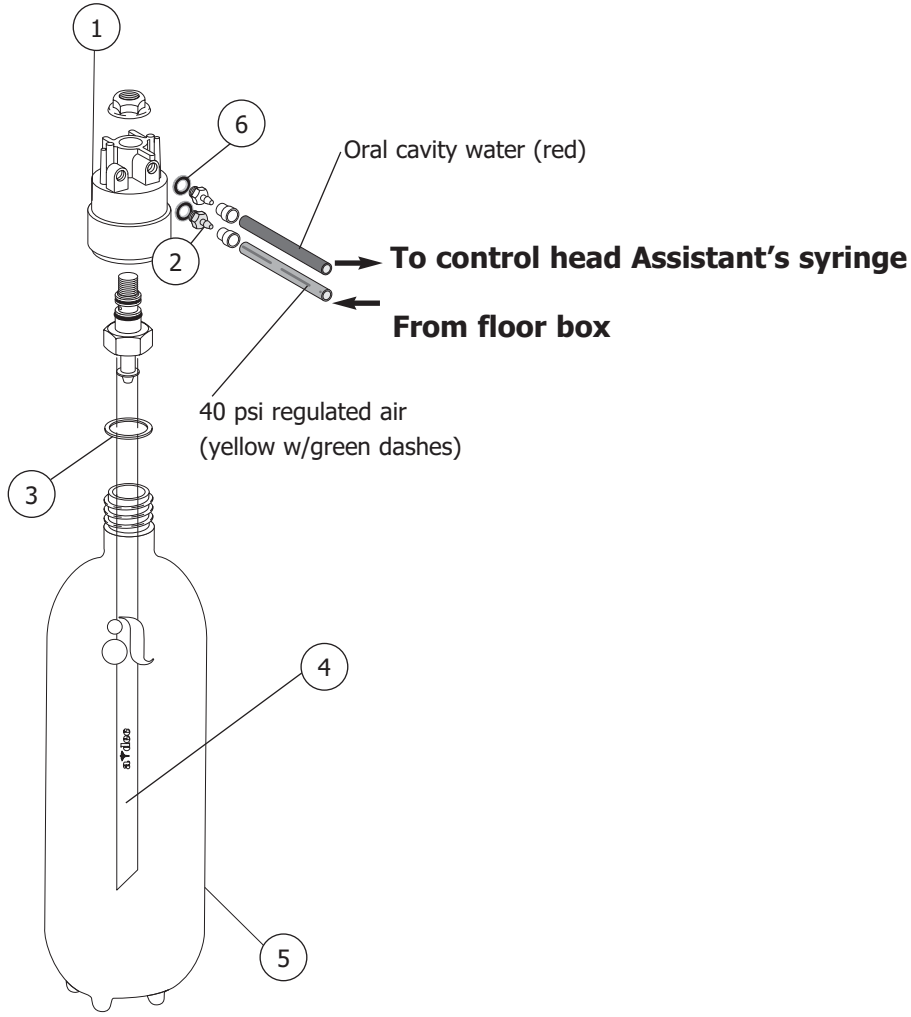
Tooth Dryer System

Self-Contained Water System

Item	Part Number	Description
1	14.0408.00	Cap assembly replacement
2	023.070.00	Bleed barb
3	004.137.00	Gasket
4	14.0332.01	Pick up tubes pkg 6
5	14.0416.00	Water bottle
6	004.182.00	Washer

WARNING

Use only A-dec self-contained water bottles on units. Using glass or plastic bottles can pose a serious safety hazard. Bottles should be pressurized to only 40 psi. Do not connect components that require a continuous water supply.

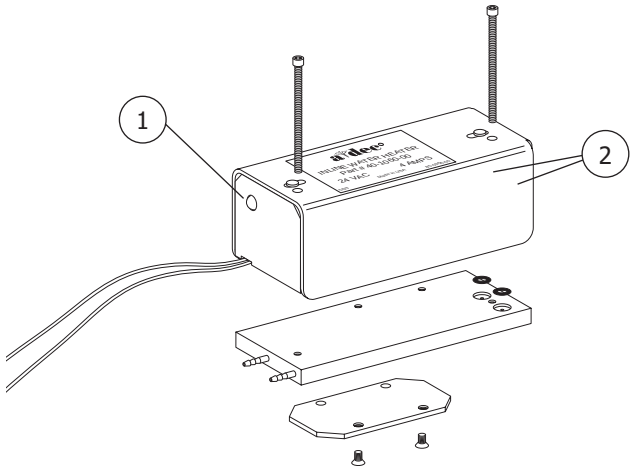


Radius Self-Contained Water Supply System

Low Voltage Water Heater

NOTE: The low voltage water heater must lie flat to be effective.

Item	Part Number	Description
1	40.1060.00	Water heater, low voltage
2	033.003.01	O-ring, viton pkg 10



Low Voltage Water Heater

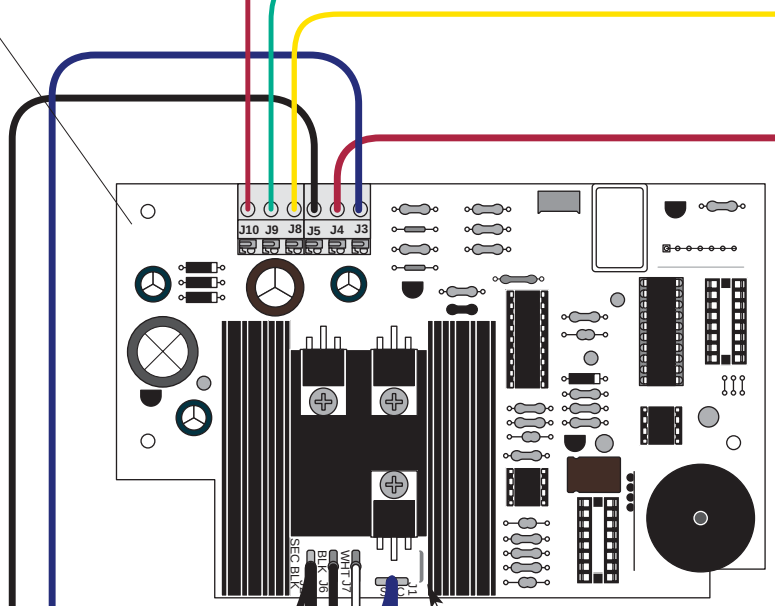
Curing Light Wire and Plumbing Diagram

To curing light handpiece

Curing light and cord assembly (Contact Demetron for service parts and information.)

NOTE: All curing light circuit board installations must include a drip shield, A-dec P/N 11.1140.00.

Curing light circuit board (Contact Demetron for service parts and information.)



Fusible link

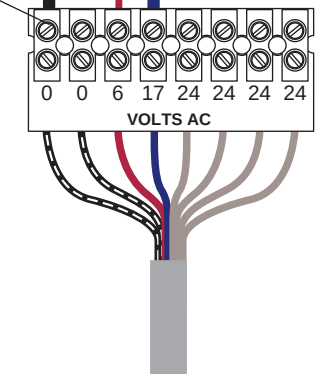
Terminal strip wiring voltage (after April 1998)

Wire Color	Voltage
Black/White	0
Black/White	0
Red	6
Violet	17
Gray	24
Gray	24
Gray	24
Gray	24

After April 1998

NOTE *Voltages are measured using the black (terminal position 1 or 2) as common

Terminal strip



Cascade delivery systems: from post box
Radius delivery systems: from power supply

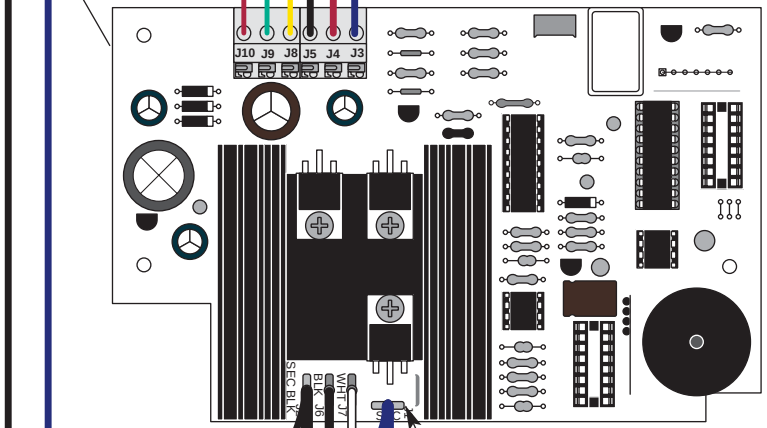
Curing Light Wire and Plumbing Diagram

Connected to curing light handpiece

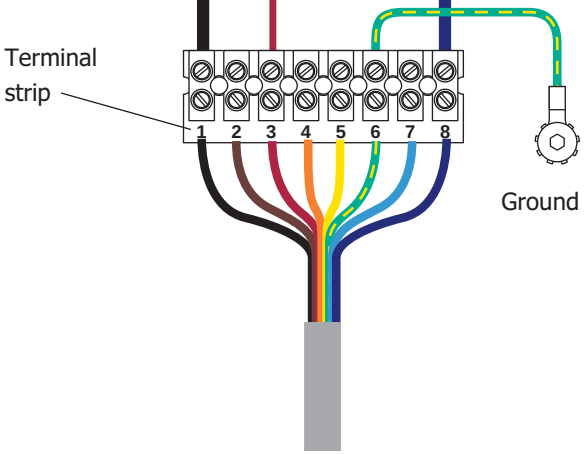
Curing light and cord assembly (Contact Demetron for service parts and information.)

NOTE: All curing light circuit board installations must include a drip shield, A-dec P/N 11.1140.00.

Curing light circuit board (Contact Demetron for service parts and information.)



Fusible link



Cascade delivery systems: from post box
Radius delivery systems: from power supply

Before May 1998

Terminal strip wiring voltage (before May 1998)

Position	Wire Color	Voltage
1	Black	0
2	Brown	0
3	Red	6
4	Orange	24
5	Yellow	24
6	Green &Yellow	Ground
7	Blue	24
8	Violet	17

NOTE: *Voltages are measured using the black or brown (terminal position 1 or 2) as common

Troubleshooting the Curing Light

Troubleshooting information for the curing light is listed in the following charts.

Problem	Action	
	If . . .	**Then . . .**
Curing light does not function (no fan, no light, and no timer signal 20 seconds after the trigger was pulled)	No power	Check to make sure the system is plugged in, and the main's power is available. Check to make sure the master On/Off toggle is in the ON position, and regulated air set to 80 psi.
	Loose connections in curing light handpiece	Place the master On/Off toggle in the OFF position. Disassemble the curing light handpiece and inspect all connections for loose wires. Reconnect or repair any loose wires and re-test the curing light. Replace the curing light handpiece (P/N 21095) available only from Demetron.
	Loose connections to the curing light circuit board	Place the master On/Off toggle in the OFF position. Lower the curing light circuit board assembly and inspect all connections for loose wires. Reconnect or repair any loose wires and re-test the curing light.

Problem	Action	
	If . . .	**Then . . .**
Curing light does not function (no fan, no light, and no timer signal 20 seconds after the trigger was pulled)	Electrical damage to the curing light circuit board has failed.	Place the master On/Off toggle in the OFF position. If damage is visible replace the circuit board from Demetron.
	Power interrupted to curing light circuit board **NOTE**: Line voltage from duplex receptacle should be approximately: • 100 VAC at 60 Hz • 120 VAC at 60 Hz • 240 VAC at 50 Hz	Place the master On/Off toggle in the OFF position. Check the AC voltages at the circuit board, test pin connections. (Pull the trigger 4-6 times for adequate test time.) J2 (common) and J4 ≈ 6 VAC (logic) J2 (common) and J1 ≈ 17 VAC (fan/light).
	If AC voltages are less than: 5.2 VAC at J2-J4 16.2 VAC at J2-J1	Check the 6 Volt and 17 Volt fuses in the power supply (refer to *Post Boxes & Cuspidors (PB).* Check for an open in the delivery system wiring harness refer to *Post Boxes & Cuspidors (PB).*

Problem	Action	
	If . . .	**Then . . .**
Curing light does not function (no fan, no light, and no timer signal 20 seconds after the trigger was pulled)	Blown fusible link on the curing light circuit board	Place the master On/Off toggle in the OFF position. Inspect the fusible link by gently pulling the protective sleeve and wire. If damaged, the protective sleeve will fall off. If the fusible link is broken or damaged, replace the curing light circuit board (P/N 20622) from Demetron.
	Power interrupted from curing light circuit board to curing light handpiece **NOTE**: If testing with a True RMS Meter, J6 (black, common) and J7 (white) ≈ 12.8 VAC (light) If AC voltages are less than: 11 VDC at J9-J10 9 VAC at J6-J7	Place the master On/Off toggle in the ON position. Check the AC voltages at the circuit board, test pin connections. (Pull the trigger 4-6 times for adequate test time.) J9 (green) and J10 (red) ≈ 12VDC (fan) J6 (black, Common) and J7 (white) ≈11VAC (light). Replace the circuit board (P/N 20622) from Demetron.
	Circuit interrupted through the trigger switch There is no continuity	Place the master On/Off toggle in the OFF position. Check the continuity through the curing light handpiece trigger switch. Test at the curing light circuit board connections: J8 (yellow) to J9 (green). Replace the curing light handpiece and cord set (P/N 21095) from Demetron.

Problem

The curing light does not illuminate when activated (fan and 20 second timer signal function)

NOTE: With the exception of the above notations, all Demetron curing light assemblies and components should be replaced through Kerr/Demetron. If you are not able to correct the problem, contact A-dec customer service.

Action

If . . .	Then . . .
Light bulb does not function	Place the master On/Off toggle in the OFF position. Open the handpiece and examine the bulb. If the bulb appears to be burned out or damaged, replace the light bulb from Demetron.
Thermostat does not function There is no continuity	Place the master On/Off toggle in the OFF position. Check the continuity of the curing light handpiece. Test at the curing light circuit board connections: J6 (black, common) to J7 (white) = Continuity. Replace the curing light handpiece and cord set (P/N 21095) from Demetron.
Interruption of power to the curing light bulb. **NOTE**: If testing with a True RMS Meter, J6 (black, common) and J7 (white) ≈ 12.8 VAC (light) If AC voltages are less than: 9 VAC at J6-J7	Place the master On/Off toggle in the ON position. Check the AC voltages across the curing light handpieces. Test the white and black wires at the circuit board connections: (Pull the trigger 4-6 times for adequate test time.) J6 (black, common) to J7 (white) = 11VAC. Replace the circuit board (P/N 20622) from Demetron.